FLORIDA LANDS

....OF THE....

Atlantic and Gulf Coast
Canal and Okeechobee Land
Company

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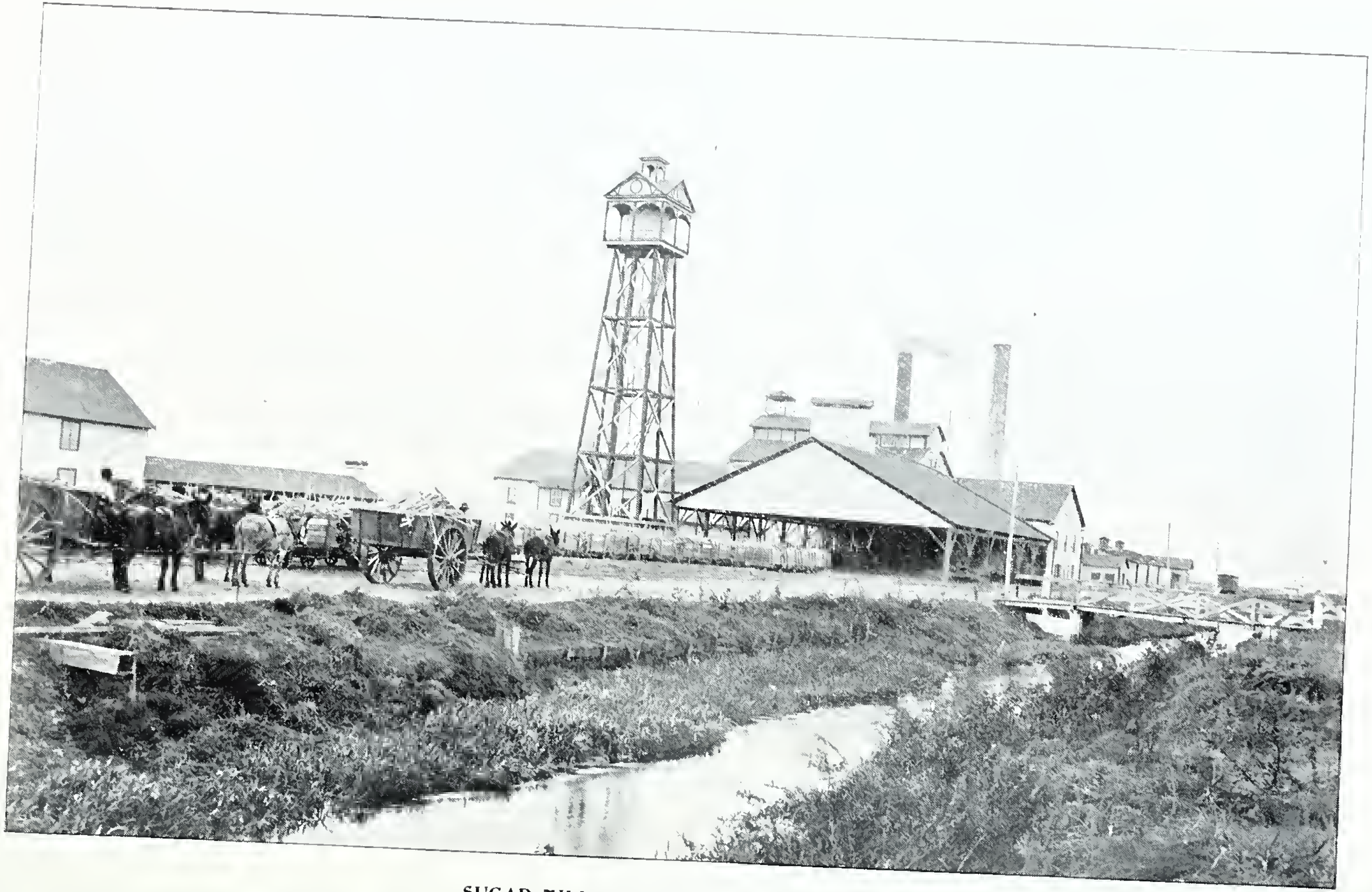

SUGAR MILL.—ST. CLOUD PLANTATION.

LANDS

OF THE

Atlantic and Gulf Coast Canal and Okeechobee Land Company

Chartered by Special Act of the Legislature of Florida, 1881

OFFICES

102 Bullitt Building
Philadelphia, Pa.

Kissimmee
Florida

OFFICERS

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Introductory.

This Pamphlet is particularly devoted to a general description of the territory controlled by the "Atlantic and Gulf Coast Canal and Okeechobee Land Company," and located in the vicinity of Kissimmee, Florida.

Attention is also called to the grand drainage scheme successfully inaugurated by this Company, and to the great area of inexhaustibly rich lands which have been permanently reclaimed for agricultural purposes by its operations. Some brief statistics on climate, health, rainfall, temperature, etc., are given to demonstrate that, for an all year around residence, the peninsular portion of Florida is fully as desirable as any section of the United States.

Messrs. Aitkens, Wiley, Voelcker, Tacke and Williams, who are amongst the most celebrated chemists of Europe and America, attest to the exceeding richness and value of the reclaimed land for agriculture.

The Hon. Claus Spreckels, familiarly known as the "Sugar King," adds his endorsement as to the value of these lands for sugar growing.

Professor De Pass, of the Florida Agricultural College and Experimental Station, and Baltz, Clymer & Co., of Philadelphia, are high authority on tobacco cultivation in Florida and its grade as compared with choice Cuban stock.

Mr. J. I. Lewis, one of the best known and most successful peach growers of Maryland asserts, from actual knowledge, that the reclaimed soil near Kissimmee is superior to any land in the United States for peach growing. Mr. E. J. Hollister, manager of the famous celery farm near Tecumseh, Michigan, and an experienced vegetable grower, gives a strong letter on the possibilities to be realized from market gardening. We are assured that an inspection of these rich lands will convince anyone that they offer greater inducements to planters of heavy crops, or for small fruit farms and early garden vegetables, etc., and that they are of superior quality and better located for the purpose than any lands in the United States, and will consequently yield larger profit per acre to those engaged in their cultivation than lands developed for similar purposes.

Florida.

In its geographical location, Florida is nearer the equator than any other portion of the United States. It is the only peninsula on the earth whose shores are washed on the west, south and east by the warm currents of the Gulf Stream. It is the only region of America over which cyclones and tornadoes do not sweep—but the one habitat for man, animals and plants that is daily fanned by ocean breezes. Her name brings a vision of perennial summer to the winter-bound inhabitants of the North. She is pictured as the land where labor brings abundant reward and where a harsh and unfriendly climate does not eat up two-thirds of the yearly earnings. Rains do not flood the lands nor droughts destroy vegetation. Summer, the most pleasant of all seasons, is not avoided, nor is the approach of winter dreaded. It has the most equable climate in the world. It is a health resort for thousands. It has twelve hundred miles of sea coast and an inland navigation of about fifteen hundred miles. It has twenty-five hundred miles of railways. It produces over one million bushels of oranges per annum. It produces more than half the sea island cotton crop of the United States. It exports annually hundreds of thousands of crates of vegetables. It possesses millions of acres of timbered lands. Its naval stores are exhaustless. It has extensive herds of cattle and millions of acres of pasturage. It abounds in inexhaustible deposits and beds of phosphatic rock and natural fertilizers. It posesses the greatest area of rich lands for sugar, tobacco and rice in the world. It raises the finest oranges, pineapples, cocoanuts and other tropical fruit. It is the best country on the globe for sugar cane, rice and tobacco. Jute, sisal, ramie and other fibrous plants grow luxuriantly. It is the only portion of the United States where the cultivation of semi-tropical fruits and staple crops may be carried on side by side, and where the natural vegetation is as tropical as the Bahamas.

In Florida people enjoy life better and live longer than in any other section of the country. The death rate of four Northern, four Western and four Southern States given below is compiled from the United States census of 1880:

	Per Cent
Massachusetts	18.59
New York	17.38
New Jersey	16.33
Rhode Island	17.01
Indiana	15.78
California	13.33
Colorado	13.11
Illinois	14.63
Alabama	14.20
Georgia	13.79
Mississippi	12.89
FLORIDA	11.72

Climate, soil, trees, flowers, fruits, diversified crops, the waters of the sea, the beautiful inland lakes, and last and greatest of all else, healthfulness, invite the immigrant and home seeker to Florida.

Okeechobee Drainage Company.

This Company was chartered by special act of the Legislature of Florida, March 8, 1881, and has, under this acquired from the Board of Internal Improvement of the State of Florida, 2,000,000 acres of land laying south of township twenty-four and east of Peace Creek. This area extends southward from latitude 28°, and includes every class of Florida land as based on the character of its productions, elevation and nature of its soil. Her territory includes the rich pastures of the prairies, great forests of yellow pine and cypress, dense hammocks bordering the Kissimmee and Caloosahatchee rivers, and vast deposits covering hundreds of thousands of acres of rich saw grass or sugar land.

The operations of the Company have been continuous to date, resulting in the reclamation of great areas of rich land and the general improvement in the drainage of the entire country embraced in their franchise.

In the vicinity of Kissimmee over thirty thousand acres of inexhaustibly rich alluvial lands have been rendered cultivatable, and along the valley of the Kissimmee river and adjacent Lake Okeechobee are additional areas of land aggregating five hundred thousand acres, which can readily be brought into a high state of cultivation.

Territory of the Drainage Company.

The territory covered by the franchise of the Drainage Company extends north over one hundred and fifty miles from its southern limits and spreads from the mouth of the Caloosahatchee on the Gulf of Mexico to its eastern boundary, a distance of over one hundred miles. This great domain is watered by the only tropical water avenues in the United States. The

Kissimmee River, heading in the Tahopekaliga lakes, from its source to its confluence with Lake Okeechobee, is distinctive in soil, shores, scenery and vegetation ; it intercepts in its course a chain of extensive lakes of pure, clear water, which relieve its valley from the monotony characteristic of long rivers. The largest of these is Lake Kissimmee, covering an area of over ninety square miles. Oak and palmetto hammocks, red bay and palm trees and other tropical woods are distributed along the shores at intervals. Rich bottom lands and prairies, extending to the high pine lands to the east and west, characterize this section.

The Caloosahatchee River empties into the Gulf of Mexico in latitude 26°, 30'. Its estuary extending inland a distance of twenty-five miles from its mouth is over a mile in width. It rapidly narrows to a channel about fifty yards wide with bluff shores and extends inland to Fort Thompson, where it connects with Lake Flirt. From that point to Lake Okeechobee no channel existed until provided by the canals of the Drainage Company. The scenery along the river is tropical, great forests of oak trees, magnolia, palmetto and palm, interlocked by a net work of vines brilliant with flowers and leaves of bright hues all crowd to the water's edge and brighten the landscape at a time when the North is wrapped in ice and snow. Besides these rivers are numerous smaller streams and lakes of all shapes and sizes scattered through the drainage region, from ponds of a few acres in extent to lakes of thirty to one hundred square miles in area. These lakes have palmetto and pine clad shores, and the pleasant stretches of rich alluvial meadow land are open avenues for the prevailing breezes of summer. Lake Okeechobee, situated near the southern portion of the drainage territory, is upward of forty miles in length and about twenty-five miles in width. It receives the drainage from the water shed of the Kissimmee River and the lake country adjacent. No natural outlet gave vent to its accumulated waters, hence the low margins of

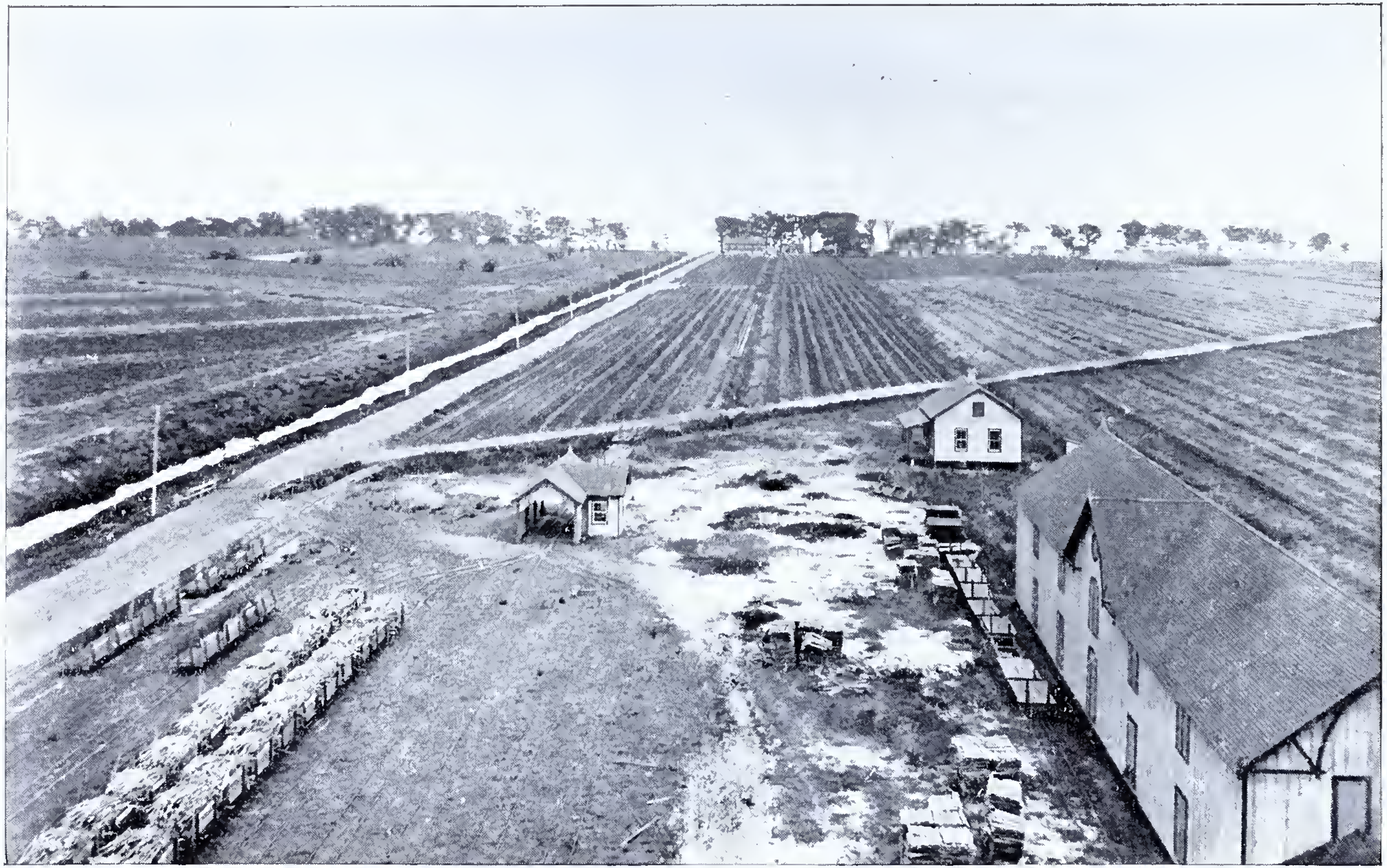
Okeechobee were more or less submerged subsequent to the rainy season;—its waters flowing to the Atlantic and Gulf through tortuous and inefficient channels, or by seepage through the great deposits of rich land extending in every direction from its margins.

Drainage Canals.

Over eighty miles of large drainage canals from thirty to over one hundred feet in width and from six to twelve feet in depth have been constructed throughout this territory. Two large canals connect Lake Okeechobee with Lake Hichpochee to the west. A large canal extends from Lake Hichpochee to Lake Flirt at the head of navigation on the Caloosahatchee River, thus providing an adequate water way from Lake Okeechobee to the Gulf of Mexico. A drainage canal from the southern border of Lake Okeechobee, fifty feet wide and seven feet deep, penetrates the rich sugar land for a distance of ten miles south. The opening of old water courses in this vicinity gives additional relief against possible high water.

The work now in hand and contemplated will quickly open up this vast area of rich soil admirably suited for sugar, rice and crops of an exhaustive nature.

The improvement of the Kissimmee River and construction of large canals connecting the chain of lakes in the northern portion of the drainage district has resulted in the absolute reclamation of a large territory in which are bodies of sugar, rice and fruit land of the richest possible description now ready for immediate cultivation. In addition to the main line of drainage completed southward through the Kissimmee valley, the Company, for several years past, has been steadily engaged in this upper district in constructing canals fifty feet wide and ten feet deep, and at present the entire lake system, including the Tohopekaliga Lakes, Lake Hart, Lake Myrtle, Lake Preston, etc., are under absolute control and the rich bordering lands ready for cultivation.



ST. CLOUD PLANTATION.

These lakes are situated near the summit of the water shed at the head of the Kissimmee valley. A large canal connecting them has been completed to the Econlochatchee Creek, a tributary of the St. John's River.

This outlet carries to the ocean a large percentage of the drainage which heretofore found its way southward to the Gulf.

The absolute drainage of the upper Kissimmee district is accomplished, and the cultivation of the rich sugar, rice, tobacco and vegetable land can now be safely and profitably engaged in.

Attention is called to the map accompanying, which indicates the geographical location of the region just referred to.

The Drainage Company has opened up three hundred and fifty miles of inland navigation, extending from Kissimmee to the Gulf of Mexico. It has expended large sums in constructing steam dredges and other appliances for opening to actual settlement their lands within its territory, and has indirectly been the means of bringing large capital into the cultivation of the rich lands for sugar, rice and other crops, and induced the construction of railroads and erection of extensive sugar and rice mills, and fostered other progressive features, which go hand in hand with the healthy development of a new country.

Health.

In view of the comprehensive nature of the work of drainage and the period over which the operations of the Company has extended, it may be interesting to note that the work has been conducted both by manual labor and by utilizing large steam dredge boats. In the conduct of this work of drainage there has been no intermission during either summer or winter since 1881.

The employes of the Company are white men exclusively, and of a higher grade of intelligence than usually found amongst working men, from the fact that they all have more or less to do with the mechanical or other operations incidental to the work of dredging. These men have been recruited largely from the Northern States and entered the service of the Company before they were acclimated.

It is gratifying to note that, during a period of over eleven years, the Company has never employed a physician nor lost an employe from death; nor have any of the men left the service of the Company from the fact that they could not stand the climate or work. Malaria and chills are absolutely unknown, and it may be boldly asserted that the Kissimmee region is virtually exempt from this form of disease. The report of the secretary of the County Board of Health, for the years 1891 and 1892, showed that of a population of over thirty-five hundred, the death rate from all causes was less than one per cent. of the total population; this showing is so remarkably favorable that it would not be presented unless backed by official sanction.

Temperature.

The Kissimmee region is located in the peninsular portion of Florida, which is a region of great interest. Below the twenty-ninth parallel of latitude the State assumes the true peninsular form. The salt breezes from the Atlantic and Gulf are constantly exerting their vivifying influences throughout this region. The stretches of pure water of the great lake region modify the summer temperature and rob the cold waves of their nipping frost. The summer begins in June and ends in September, and is not nearly so oppressive as throughout the farming districts of the Middle and Western States. The following comparison fully attests the truthfulness of this assertion:—

The report of the United States Signal Service for thirteen years shows that in Bismarck, Dakota, the thermometer has registered as high as 105°; in Leavenworth, Kansas, 107°; in Washington, 104°; in Cincinnati, 103.5°; in Philadelphia, 101.5; Boston, 101.5; New York, 100.2°; Buffalo, 101°; St. Louis, 106°. During this same period the thermometer in Jacksonville, Fla., has only once exceeded 100°, then touching 104°, and at Key West the maximum, during the same period, was 97°.

The nights throughout the summer are always cool, and the influence of the sea winds is daily felt.

Careful observations at Kissimmee, during the year 1892, gave the highest summer temperature at 91°. These records were made under the directions of the United States Government.

Rainfall.

The annual rainfall in the Kissimmee region amounts to about forty-three inches. The rainy season is during the months of June, July, August and September, and about seventy per cent. of the annual rainfall is precipitated during these four months. The balance is evenly distributed over the other eight months. Heavy downpours are exceptional events, the rains are evenly distributed and come at a season when they can be best utilized for growing crops. Rainfall carefully recorded at Kissimmee gave for 1890, 43.92 inches; for 1891, 44.47 inches; for 1892, 42.10 inches.

Resources of the Kissimmee Region.

Parties first visiting the Kissimmee region discover that their preconceived notions of the country and its capabilities were erroneous. Instead of finding a low, swampy district, without any of the attractive features usually associated with first experiences in a new country, they discover a section of the State in which the natural characteristics are more varied and engaging than elsewhere and peculiar to this region alone. Elevated pine lands reach out on every hand, firm turf roads afford pleasurable opportunities for driving or equestrian exercise—no sand clogs the wheels or impedes the vigor of the animals. These well kept avenues, winding through the pines and over the breezy stretches of meadow land lead to thrifty fruit and vegetable farms and to the rice, tobacco and sugar plantations. The canals and river improvements of the Drainage Company can be reached after a short and pleasant drive from the well maintained hotels at either Kissimmee or Runnemede. There is no section of the State where so many miles of enjoyable roadway can be found within the same limits. This region is a veritable paradise for tourists and sportsmen; new and unexplored avenues of travel have been opened, and large and small game and fish are abundant. The beautiful lakes of this section have been connected by the canals of the Drainage Company, and their water level sufficiently reduced to reclaim the great areas of rich land adjacent. These lakes are well elevated above tide-water. The operations of the Company are not designed to empty the lakes, but simply to lower their surface sufficient to reclaim the rich deposits of soil adjacent.

The level above the ocean and gulf of several of the lakes within the Kissimmee region is here given in order to show that the district in which they are situated is well elevated. The lakes are generally located in the synclinal valleys of the region and country adjacent is more elevated:

	Above Tide.
Lake East Tohopekaliga	70.8
Lake Tohopekaliga	64.59
Lake Hart	70.57
Lake Alligator	71.48
Lake Kissimmee	59.06
Lake Crooked	132.08
Lake Buffum	138.26
Lake Okeechobee	22.00

Lake Okeechobee covers an area of about one thousand square miles, and has been lowered four feet by the drainage canals. It is not intended to reduce the waters of Okeechobee below their present level. The waters of this lake will be utilized for irrigation, navigation, etc., through the rich lands adjacent. The waters of the large Tohopekaliga Lakes and those adjacent have been permanently lowered from seven to ten feet. The development resulting from these extensive drainage operations is a source of great interest and surprise to visitors. No lands are susceptible of greater improvement at equal expense than are embraced within the district herein treated of, and no region produces products more varied and valuable. Days may be pleasurably spent in the Kissimmee district, visiting points of interest, fruit farms, graperies, vegetable gardens, rice plantations and thousands of acres of waving cane all attest to the natural resources and assured future of this region. These soils are rich in humus, nitrogenous matter, lime, alumina, potash, soda, iron, phosphorous and other material not detected by casual observation. This is the country and here are the fields for gardens and truck farms, suitable tracts for such purposes are found in all sections of the reclaimed soil of the Kissimmee region. The grape, peach, citron, nectarine, plum, pear, apricot, fig, strawberry, etc., etc., never fail here. The oranges are superior and its climate will admit the more tender lemon, lime and delicate varieties of the citrus stock. Pine apples, bananas, mango and guava fresh from the plant or bush. Sweet potatoes are to be had from the field at all seasons of the year. Ten tons of cassava roots have been taken from an acre of land as a single crop, and alfalfa once started, or guinea grass once set may be cut six times a year, giving from one to two tons of hay per acre at each cutting. The great need of all this region is small farms and industrious people. Rice on both low and high land gives more bushels, weight and value per acre than wheat in Ohio. As in Japan, two crops of rice may be produced in a year.

Milo-maize, potatoes, yams, and arrowroot, and all tubers produce largely. Cassava as a stock for starch, tapioca and glucose can only be safely grown in the Kissimmee region and produces from eight to ten tons per acre.

Sorghum on these lands yield heavy crops. Luxuriant and nutritious grasses follow seed time and cover meadows and pastures with a luxuriant carpet of green. Cow-peas, beggar weed and crab grass more than fill the place of clover in the fodder crops. Fibrous plants, which enter so largely into the textile industries of the country, mature to perfection in the Kissimmee region; jute, sisal, hemp and ramie are successfully grown.

Soil of Sugar Cane.

Upon the physical character of the soil and its chemical composition depends the question of its suitability or unsuitability for certain crops. The first essential in a fertile soil is the capability for absorbing an abundance of air; at the same time the friability or porosity of the soil must not be so excessive that no moisture is retained. Clay soils are objectionable from the former cause, and elevated, loose, sandy ones from the latter.

For sugar culture, soils well fertilized by a proportion of decayed vegetable matter are esteemed superior to all others. That soils in hot countries, especially in tropical climates, contain more organic matter than those in a more northern latitude, is a common supposition; but it is evident from analysis that such is not the case with cane soils. In fact, putting aside soils of a peaty nature, it is rare to meet with cane soils yielding more than from two to four per cent. of humus or vegetable mould. The loss of this organic matter has produced sterility in Java and other cane countries by causing a want of porosity, of nitrogen, and of carbonic acids.

Climate.—Climate has a pronounced effect upon the commercial value of all plants whose secretive products are sought to be availed of and sugar-cane forms no exception. This latter plant thrives to the greatest perfection in a warm, moist climate, with moderate intervals of hot dry weather, tempered by refreshing sea breezes. The sugar-cane attains its greatest development in semi-tropical countries, where cold is not of sufficient degree to check its growth. Strong light, warm and moist weather for the growing season, followed by cool and dry weather for maturing the crop and concentrating the saccharine juices are the conditions most favorable.

Drained Lands.—In the Kissimmee region all of the requisite conditions for the cultivation of sugar-cane prevails. There we have bright sunlight, warm weather—the rains falling during the growing season of the cane—and dry weather, a condition most essential, prevailing when the cane is maturing.

Within this region are vast areas of land, inexhaustible in their wealth of vegetable mould, which have been permanently reclaimed by the drainage canals of the Okeechobee Drainage Company.

The soil of these rich bottom lands is homogeneous and does not partake of the character of the marsh-lands of the North, in which tussocks and deep holes adjacent are the normal condition. The soil is a heavy rich loam, resulting from the partial decay of vegetable matter under water, and contains as high as seventy-five per cent. of organic matter, and in depth varies from three to twenty feet. The surface is unbroken, and naturally supports a luxuriant growth of saw-grass and aquatic plants, which give place to dog-fennel, wild millet and nutritious grasses as soon as the water is permanently removed. Beneath this rich humus is usually found a bed of marine marl, which, in a measure, has become incorporated into the overlaying stratum. These limy particles, in their slow chemical change, take up and neutralize the acidity due to decaying plant-life; besides, a perennial vegetation, in one form or another, aids in the absorption of gasses of decomposing plant-life, thus rendering the soil sweet and adapted to immediate cultivation as soon as relieved from the water.

This has been repeatedly demonstrated in actual practice; first, at Southport, at the foot of Lake Tohopekaliga, in 1884, a tract of land which had been permanently covered with two feet of water, was placed under a high state of cultivation for sugar-cane. Upon the same ground a crop of corn was raised before the sugar-cane commenced to grow, and eighty bushels of corn to the acre were harvested. Potatoes and other vegetables attain a high state of perfection; watermelons of large size and unsurpassed quality were produced.

Upon a much greater scale this has been repeated from year to year until the country adjacent to Kissimmee is gaining notoriety from the great variety of crops and the rich agriculture conducted there.

Analysis of Soil.

Samples of soil from the reclaimed lands have been taken at numerous points throughout the drainage district and submitted to chemists of Europe and America for analysis. A comparison of the results show a remarkable uniformity in the components of these remarkably rich soils. Professor A. P. Aitken, of the Royal Agricultural Society of Scotland, calls attention to this soil in connection with his analytic report as follows:

" This is a most remarkable soil. It resembles in texture and composition the finest potting mould. The amount of nitrogenous organic matter contained in it is what one expects to find in a manure rather than a soil. If the sample is representative of the soil found over an area of any considerable extent, it must be a district of extraordinary fertility, and if it is of any great depth it will be a mine of wealth to the agriculturist. I have never seen a sample of soil so attractive, or containing in it to such a degree those characteristics of a soil that indicate fertility."

Professor H. W. Wiley, chief chemist of the United States Agricultural Department, states that these lands are

PEACH ORCHARD AND VINEYARD.—ST. CLOUD PLANTATION.

new to agriculture, and superior to any other soil in their capabilities for heavy crops. An extended statement of Professor Wiley is given further on.

Messrs. Aug. Voelcker & Sons, agricultural chemists, of London, refers to the high percentage of vegetable and nitrogenous matter and character of these new lands.

Professor D. Tacke, director of the Peat Experiment Station, Bremen, submits a careful analysis of the soil. Dr. Tacke says:

> "In respect to contents of potash, phosphoric acid and lime, the samples of soil from Florida are quite similar to virgin peat soil from Northwestern Germany, overgrown with heather. It is distinguished, however, by a much higher content of nitrogen and by a much more perfect decomposition. Very likely the nitrogen is contained in a form much more available to plant growth than in Northwestern Germany peat lands. * * * * Undoubtedly the soil as represented by the samples will become very productive."

Professor W. J. Williams, of the Keystone Chemical Company, of Philadelphia, Pa., fully confirms the results obtained by the distinguished gentleman above named.

The analysis on the following page is a fair presentation of the conclusions and results arrived at by the high professional skill of the most scientific chemists.

Comparative Analysis of Soils.

A. New Estate in Jamaica.
B. Demerara Plantation worked fifteen years.
C. } Sample of Saw-grass soils (sugar lands) Okeechobee Land Co.
D. }

	Jamaica.	Demerara.	Florida. Okeechobee L. Co.	
	A.	B.	C.	D.
Moisture	12.25	18.72	15.95	16.84
Organic matter and combined water	15.36	6.03	50.61	75.65
Silica and insoluble silicates	48.45	68.89	28.56	0.91
Alumina	13.80	2.50	1.34	1.47
Oxide of Iron	6.72	2.60		
Lime	0.99	0.08	1.82	3.17
Magnesia	0.29	0.25	0.09	0.18
Potash	0.11	0.10	0.06	0.13
Soda	0.70	0.09	0.19	0.38
Phosphoric acid	0.10	0.03	0.20	0.18
Sulphuric acid	0.30	0.03	0.74	0.51
Chlorine	0.51	trace	0.21	0.43
Oxide of manganese, carbonic acid and loss in analysis	0.42	0.68	0.23	0.15
	100.000	100.000	100.000	100.000
Nitrogen (in organic matter)	0.31	0.05	1.81	2.17

The planter in Florida can depend upon a much longer season for the maturing and harvesting of his crop of sugar-cane than in Louisiana. In Florida the crop can ordinarily remain standing until about March 1, whereas in Louisiana it is important, on account of liability to freeze, to finish milling the cane by the first of January.

The Hon. Claus Spreckels, whose great plantation in the Hawaii Islands, and beet sugar fields in California, and immense sugar refinery at Philadelphia place him in the lead of the world's sugar-growers, in the letter accompanying pays a high compliment to the richness and value of the reclaimed land for sugar cultivation:

PHILADELPHIA, PENNA, March 22, 1890.

MR. HAMILTON DISSTON.

Dear Sir:—In answer to yours of the 20th instant, in which you ask my opinion regarding Florida as a sugar-producing State, I take pleasure in saying that, during my recent trip to inspect your sugar operations, my surprise was great at finding such a country for the growth of sugar-cane. The soil is as rich as any that I have ever seen, and, with proper cultivation, the yield should be equal to that of any other country on the face of the globe.

I congratulate you upon the bright prospect for the future of the sugar business in the State of Florida.

Yours truly,
CLAUS SPRECKELS.

Kissimmee Sugar Land.

The largest tracts of sugar lands in contiguous bodies, at present available for cultivation, are located near the town of Kissimmee.

Within a radius of twenty miles of Kissimmee is an area of at least thirty thousand acres of sugar land, at present available for cultivation, in tracts of from five hundred to two thousand acres, which possess every requisite in elevation, components of soil, and the natural facilities with which they can be put into cultivation. These rich sugar lands are admirably located, the greater majority of them bordering the lovely lakes of that region, extending from Lake Hart to Lake Kissimmee, thus affording pleasant farm and plantation sites and ensuring good drainage and abundance of water for irrigation when necessary.

These lands are elevated about seventy feet above tide-water, and a sufficient natural grade exists to afford easy drainage.

Transportation facilities are excellent. The Cuban fast mail from Boston and New York passes through Kissimmee on its way to Tampa. The distance from deep water navigation on the St. John's is forty miles, and seventy-five miles to tide-water on the Gulf. The South Florida Railroad affords a most excellent service in reaching these points.

The St. Cloud Sugar Belt Railroad penetrates into the heart of the sugar lands, and is one of the best equipped roads in the state. The Midland Railroad is completed into Kissimmee and affords an additional avenue for quick transit, connecting with other main lines to the north and west.

Ample steamboat service reaches the lands along the lakes and river system to the southward. Kissimmee, located at the head of Lake Tohopekaliga, is a most healthy, beautiful and desirable town. It has grown entirely from the development of the country adjacent, has a population of over two thousand, and every facility in the way of good hotels, churches, schools, etc.

Hamilton Disston Investment Company.

One of the notable outgrowths of the reclamation of the rich sugar land in the vicinity of Kissimmee is the Hamilton Disston Investment Company. whose extensive plantation is located on the south shore of Lake East Tohopekaliga. This property is known as the St. Cloud Plantation, and is distant about seven miles from Kissimmee on the line of the "St. Cloud Sugar Belt Railway." Twelve hundred acres are planted in cane for the crop of 1893. It owns one of the finest and largest sugar mills in the United States, having a capacity of about seventy-five thousand pounds of centrifugal sugar per day.

Engine houses, storehouses, warehouses, stores, dwellings, etc., and miles of tramway enter into the equipment of this plantation. The soil now occupied by this plant was, in its normal condition, permanently inundated by fresh water. These lands have been reclaimed for a period of over eight years, and have been partly cultivated for seven years. It is gratifying to note that although numerous families from various sections of the United States have continuously lived on these lands, the health conditions remain unchanged and a similar immunity from malarial troubles and other diseases is enjoyed by all of the residents, as that heretofore noted respecting the health of the Kissimmee region. Tenant-farmers and others have planted several hundred acres of sugar-cane on lands adjacent the plantation. The " St. Cloud " mill will be utilized as a central factory to grind the cane grown in that vicinity. The farmers realize three dollars and fifty cents per ton on board of cars, or four dollars per ton of cane delivered at mill. The reclaimed lands readily yield from twenty-five to thirty tons of sugar cane per acre. It is contemplated to enlarge the capacity of the mill before cane harvesting begins this fall. The Investment Company own about forty thousand acres of land, which they are arranging to colonize with a class of thrifty farmers.

Sugar.—The following brief extracts from reports by Mr. D. C. Sutton, chemist, recently stationed at the St. Cloud plantation and at present in charge of the United States experimental station at Runnemede, Florida, attest to the superiority of the reclaimed land over either Lousiana or Cuban soil, for sugar cultivation. The comprehensive estimates and figures accompanying Mr. Sutton's statements can be had on application.

* * * * " Kissimmee valley muck land four feet deep will give an average yield of thirty tons of sugar cane per acre."

* * * * " A good yield for plant cane on Lousiana land is twenty-two tons per acre, and stubble fourteen tons; thus the average would be eighteen tons for plant stubble. Only two crops can be gathered from one planting."

* * * * The above named gentleman remarks that, " on good lands in Cuba, that are well cared for, five crops may be gathered from one planting, with an average yield of twenty-seven and one-half tons, under the conditions that the lands shall be new and the cultivation done with care."

* * * * " Exactly how many crops can be gathered from one planting in Florida cannot be definitely

stated at this time. There is at present on the St. Cloud plantation three-year-old stubble, with no appearance whatever of a depreciation in yield.

* * * * "Seven-year-old stubble is now growing on Mr. Slavin's place at Southport, with as much vigor and as large yield as the year it was planted."

* * * * In the old Indian fields in the vicinity of Lake Okeechobee, sugar cane is in strong growth which has rattooned for over fifteen years.

* * * * "Now we see that Florida can produce more cane at less cost than either Louisiana or Cuba, and we may add Sandwich Islands; and certainly it can be manufactured into sugar here as cheaply as elsewhere, and thus Florida shows the world how to produce *more sugar at less cost*, and steps so far toward a solution of that national question which has long puzzled so many wise statesmen."

* * * * "All of the four grades made showed a high polarization, one reason being the great consideration paid to cleanliness in the manufacture. Only a small proportion of the first sugars was granulated, but such as was made was of a fine quality, the polarization showing a remarkably high degree of purity. Various grades of yellow clarified were made, varying but little from a high standard."

Rice.—As abroad, so in the United States, the culture of rice is both low-land (wet) and up land (dry). The main crop is low-land, as rice was and is still by many regarded as strictly a water plant. Cultivation on up-lands has not been so general owing in part to reasons above given, and ignorance of the fact that rice yields far beyond other grains. The phrase "good as wheat" is scarcely half descriptive of the rewards which come to the careful planter on up-lands in average seasons; the general character of up-land rice is very handsome, being flinty and susceptible of high polish. The farmers near Kissimmee grow up-land rice successfully, and secure remarkable yields on lands that seemingly were not in condition to respond to grain-producing crops. For cultivating low-land rice under the best conditions, it is necessary to insure perfect facilities for both drainage and irrigation.

The rich marsh lands reclaimed within the district named are easily provided with both of these requisites; and under the favorable conditions of the long growing season it will be possible to make two crops each year. For rice culture the land is prepared generally the same as for oats or wheat; the planting is identical, either in drills or broadcast. The drainage must be sufficient to get the land in proper condition; no particular rule governing the depth, width and distance of ditches can be laid down, it being simply necessary to provide sufficient to insure drainage. Fewer ditches will be necessary on these lands than elsewhere, from the fact that they are generally well drained and elevated above water-level. The low levees for flooding are built to suit the levels of the land surface.

It requires about two bushels of seed to plant one acre. The yield on well selected and cultivated land should be from fifteen to twenty barrels of rough rice per acre, worth from three-fifty to four dollars per barrel ~~bushel~~. The rice crop in 1872 amounted to 40,000,000 pounds. In 1882 to 100,000,000 pounds, and 1892 to 147,000,000 pounds. Notwithstanding the rapid increase in home production, our importations are steadily growing, which indicates that rice has become a prime necessity in this country. In 1882 we imported 150,000 barrels, and our importations now amount to fully 600,000 barrels.

Messrs. Harleston and Ravenell, well-known and experienced rice planters of South Carolina, are planting land near Kissimmee, on line of Sugar Belt railroad. They will make two crops a year. The first harvest being from first to middle of June. A large rice mill has been erected at Kissimmee, capable of handling an area of ten thousand acres annually.

Tobacco.—For several years tobacco has been successfully grown on the reclaimed land adjacent to the north shore of Lake Tohopekaliga. The leaf produced proved of such excellent grade in the fineness of its fibre and rich qualities, that a demand has been created for the tobacco of this vicinity. The cultivation of tobacco was extensively carried on in the western counties of Florida, prior to the late war. This tobacco, in point of quality, compares favorably with the best Cuban. Messrs. Straiton & Storm, well-known tobacco manufacturers of New York, after a very careful examination of the soils and tests of tobacco already grown, organized a company with large capital, which is now successfully engaged in the western part of the State. Tobacco of fine grade is grown on the Caloosahatchee river, great success attending the growth of leaf wrappers. An examination of the soils in the vicinity of Kissimmee has proved their excellence for this species of cultivation. The expense of preparing the land and making the crops is about the same as elsewhere. The fine flavor and large yield produced from the tobacco fields in this vicinity will soon centre attention to the possibilities in this direction.

Professor James P. DePass, director of experimental station at Lake City, Florida, in bulletin No. 19, which is devoted to the subject of cultivating tobacco in Florida, expresses his opinion as follows:

" First. After four years' experience in growing tobacco, and after re-sweating and betuning tobacco grown on different kinds of soil in various parts of the State and fertilized by different methods, and after making cigars from these several samples so treated and testing them, I give it as an *opinion* that the tobacco grown in tropical and semi-tropical regions is dependent more upon the climate than the soil for that aroma, as well as that flavor so much admired.

" Second. That the Pensacola Tobacco Fair demonstrated that Florida soil was very generally adapted to the growth of cigar tobacco and as my observation extended as far south as Fort Myers, that no one section thus far has demonstrated any special advantage over another in producing it as to quality from Pensacola to Fort Myers.

"Third. That the main point to be learned to make Florida tobacco compete successfully in the markets with Havana, and make it valuable, lies in the proper sweating and betuning it when stripped from the stalk, and putting it on the market as Florida tobacco."

The cultivation of tobacco on muck lands is new to agriculture. It was supposed that the leaf growth would be too vigorous and coarse for tobacco entering into the manufacture of cigars. It is a well recognized fact that the finest grades of Cuban tobacco are grown on the rich virgin soils, and that fertilizing the land for tobacco causes an immediate deterioration of the leaf.

The soils of the muck land are of the richest possible description and produce a superior leaf. Cigars made from tobacco grown on these lands near Kissimmee have been pronounced by experts, of finer quality and flavor than those manufactured from tobacco grown on the general lands of the State.

OFFICE OF
BOLTZ, CLYMER & CO.,
Lehigh Avenue and Fifteenth St.

FLOR de AMERICANOS
and
Enterprise Cigar Factories.

PHILADELPHIA, September 27, 1892.

MR. HAMILTON DISSTON,
Philadelphia, Pa.

DEAR SIR: We have just completed a full experiment with samples of the tobacco sent us of this year's crop We find, as in former years, the leaf grown on muck lands far superior for Havana seed, which, in our opinion, is the better result.

Our recent experiment fully demonstrates that leaf tobacco grown on your Florida muck lands is far superior for filler purposes, to any domestic tobacco grown; besides a great saving by mixing a portion of it with fine Cuba tobacco. The combination results in a superior quality cigar at a reduced price of production.

Very respectfully,
BOLTZ, CLYMER & CO.

The foregoing opinion of this well-known firm of manufacturers, whose out-put of tobacco and cigars is greater than any other establishment in Pennsylvania, is supplemented by the following letter which was written after using the tobacco of the last crop, made near Kissimmee: .

PHILADELPHIA, PA., January 24, 1893.

HAMILTON DISSTON, ESQ.,
Philadelphia, Pa.

DEAR SIR: We have manufactured cigars from the tobacco raised near Kissimmee, Florida, and have no hesitation in saying that it is equal to any grown in this country, and that it will command as high a price in the market as any other tobacco raised in the State of Florida.

Yours truly,
BOLTZ, CLYMER & CO.

The following extracts are from a report of Professor H. W. Wiley, Chemist U. S. Agricultural Department.

The muck lands are surrounded with the ordinary sand formation of the Florida peninsula, carrying a growth of pines interspersed with small groves of hard wood, on what is known as the hammock land or sand land, containing a certain percentage of organic matter.

These pine lands are covered with a fine growth of yellow pine, furnishing a good quality of lumber and the very best quality of fuel.

Except where they are remote from transportation, the lumber and fuel which they would furnish, would pay for clearing the lands. These sandy lands will become important adjuncts in the cultivation of the vegetable mold. The hammock lands make excellent orange groves, and, in fact, the pure piney woods soil can be made to grow excellent groves of oranges with proper fertilization.

Sugarcane also grows well in the sand, and such sugar cane contains a very high percentage of sugar. Where the sand land has been cow-penned, that is, where cattle have been kept in small enclosures, it is found to grow an excellent quality of corn and garden crops in general. The cassava plant also grows in the greatest abundance in the sand, often without fertilization, producing a crop of from four to six tons per acre of roots, containing thirty per cent of starch. An excellent quality of glucose can be made from these roots. They can also be fed with the greatest advantage to stock.

The chemical compositions of the vegetable mold is of much importance from an agricultural point of view. It is a soil which is, as might be supposed, deficient in mineral constituents with a great superabundance of organic constituents. Not only is the quantity of humus very large, but nitrogen also occurs in the greatest abundance. In the dried soils the nitrogen content sometimes reaches as high as three per cent, showing sixty pounds of nitrogen per ton, or, as sold on the market, about $10 worth of nitrogen in each ton of dried soil.

This nitrogen, fortunately, is not all in the condition for assimilation by a growing crop, but by a gradual process of nitrification, would become so, as the land is brought into cultivation. The abundant supply of phosphates in the vicinity of these lands, will render their treatment with phosphoric acid and lime a very economical one. The only imported fertilizer which will be required will be potash. With the development of a stock industry in this region, large stores of stall manure will become available, which will be found particularly advantageous to the sand lands. While it is seen that the problem of mineral fertilization is an important one, yet on the whole it appears that it has no more magnitude in connection with these soils than the problem of organic fertilization has with ordinary soils.

In conclusion, it may be said that the crops which can be grown upon the sand and muck soils of the Southern Florida peninsula, includes first, all kinds of vegetables for early market. Second, fruits of every description, including all the citrous fruits, and especially *peaches*, which grow in the greatest profusion, and are ready for market early in May.

Third, the staple semi-tropic crops of sugar-cane and rice. Fourth, the cassava and corn which grow upon the sand lands, and fifth, bananas, cocoanuts, coffee, etc., essentially tropical plants.

All crops of the kind mentioned above, can be successfully grown upon these lands when they are brought into a proper form of cultivation.

Peaches.—The reclaimed muck soil offers a new and inviting field to peach and fruit growers. The first experiment in peach planting on muck land, in the United States, was at the St. Cloud plantation near Kissimmee. This orchard is now six years old. The trees are larger and in more vigorous health and bearing than any trees of the same age in any section of the country; they came into profitable bearing the second year, and increased rapidly in size and productiveness. The trees make wood very fast, suckers twelve feet long are produced in one season. The roots of the trees are entirely free from the attacks of parasites of all kinds, the skin of the root growth remains smooth and clean. Expert peach growers have examined these trees critically, and freely assert that the life of the peach tree on muck soil is practically unlimited, and from appearance of the trees in question, they assert that with proper care a peach orchard should be in vigorous bearing up to twenty years after planting, and possibly longer.

The region in the vicinity of Kissimmee could be converted into the most profitable peach belt in the United States. These peaches are the first in the market, and naturally command the highest prices realized from this character of production. The following letter is conclusive on this point:

KISSIMMEE, FLA., February 8, 1893.

HAMILTON DISSTON, ESQ.,

DEAR SIR: Replying to yours of recent date, I take great pleasure in giving you my experience and opinion of the peach business in Florida. For the past few years I have been growing peaches on muck lands near Kissimmee, and I find that $200 per acre can be realized easier than $100 in the Maryland peach belt.

Florida, in my mind, has many advantages over the Northern States in peach growing. First, being the time of ripening, which is about the first of May, which enables the Florida grower to realize fancy prices for his entire crop; the early fruit ripening early in May has brought as much as eight dollars per crate (three peck crates). Second, the "yellows," the dread of the Northern peach belts, are entirely unknown in this section; also we have no borers, which are a serious drawback to Northern growers. In addition to these, our peaches here are ripened in dry weather, which gives them good shipping qualities. The Florida grower can count on a crop at two years from the time of planting, with as much certainty as the Northern grower can at three, thus enabling him to realize on his investment a year earlier than in the North.

A man can be engaged in peach growing both in the North and South. The Southern crop can be picked and marketed before the Northern crop is ready to handle, as I have been doing this for several years to advantage, which enables me to spend my summers in the North, and my winters in Florida.

Very truly yours,
J. I. LEWIS,
Prices, Quaco, Md.

Grapes.—For a long time it was believed that only the Muscadine type of grape, Scuppernong and its seedlings, could be successfully grown in Florida excepting by grafting on the wild native stock. Of late years numerous vineyards of choice thin-skin grapes have sprung up in many sections of the State. Delaware and Cynthiana are good varieties, and ripen in July. The Ives is quite a prolific and sure bearer; these grapes are large, black and musky.

The Niagara, a very attractive white table grape, has been very successfully grown in Orange County and the Kissimmee region. The Niagara grape grown in Florida is more desirable, in many respects, than Northern grown. The bunches are larger, averaging three-quarters of a pound each, while many weigh one-and-one-half pounds, and produce three to four tons per acre. This grape ripening as it does from June 7th to 20th, allows it to be placed on the market when there are no outdoor grown grapes, consequently large prices can be obtained. The grape industry is rapidly assuming importance. Wine of a superior quality is made at some of the vineyards.

The scope of this small pamphlet prevents an itemization of the treatment and character of orchard products and small fruits grown in the Kissimmee district. Neither will a complete list of these species be presented. It is sufficient to say that the APRICOT, NECTARINE, FIG, PLUM, JAPAN PERSIMMON, OLIVE, PECAN NUT, JAPAN CHESTNUT, ALMOND, and all varieties of these families are becoming popular on account of the readiness with which they respond to cultivation and the profitable market awaiting their shipment.

The STRAWBERRY, BLACKBERRY, DEWBERRY, RASPBERRY, MULBERRY and other varieties yield large returns.

Citrus Fruits.—Of this extensive family, the orange takes the lead as the largest grown fruit product of Florida. Groves of several hundred acres in area are becoming features of some sections of Florida. The orange belt of the State includes the Kissimmee region and the cultivation of this favorite fruit has proved remunerative where properly handled. Well conducted orange groves in this region will yield a handsome profit to owners, even at prices much less than usually obtained for the fruit. Fair judgment in selecting choice and good shipping fruit and study of markets North, largely regulate the profit to orange growers. Information covering the land best suited to orange cultivation, season for planting, and care of trees, etc., can be had on application.

Included in this family are the lemon, which when produced from budded stock always leads the Mediterranean varieties in favor, and is an early and prolific bearer in this region.

The LIME, SHADDOCK, GRAPE FRUIT, CITRON and KUMQUAT, are all of this family and certain to yield largely in response to careful cultivation. It is difficult to catalogue the orange family completely, as new varieties are constantly being introduced; at present they are properly named andclassified under "CITRUS AURANTIUM DULCIS," one hundred and fifty varieties; of MANDARINS and TANGERINES, thirty-seven varieties. Perhaps the most popular varieties of oranges being planted at present are Washington Navel, Hart's Late, Jaffa, Maltese Blood, Early Oblong, Mediterranean Sweet, Majorca, besides choice native varieties.

Vegetables.—The vegetable business of Florida, while yet in its infancy, has already become one of the most important industries in the State. There is no month in the year in which fresh vegetables may not be produced, either for the home or Northern markets.

The soil is so easily worked that the crop is brought to maturity with less labor than attends the same species of cultivation in the North. The reclaimed lands in the vicinity of Kissimmee afford an inviting field in which to engage in vegetable cultivation. Early and neatly prepared and well nurtured garden products always find ready sales in Northern markets at high prices. So much depends upon the care and handling from the time the seed is planted until the vegetable is marketed North, that when losses occasionally occur from mistaken methods of marketing, the fault should not be charged to the soil or its capabilities. After the vegetables have been crated, quick and sure transportation is the most essential feature.

Transportation companies are now giving excellent facilities in this direction, with profit both to themselves and to the producer.

The vegetable business from Florida has grown since 1880 very rapidly. At that time about 1,000 crates were shipped annually; at present fully 1,000,000 crates are marketed annually. Tomatoes, cucumbers, squashes, beans, peas, cabbage, cauliflower, Irish potatoes, egg-plants, and beets are the principal vegetables grown.

Attention is called to the following letter from an experienced and successful vegetable grower:

TECUMSEH, MICHIGAN, March 1, 1893.

MR. HAMILTON DISSTON,

DEAR SIR: Having had twenty years' experience in the cultivatio of vegetables in the United States and Canada, and the development o muck lands in the celery district at Tecumseh, Mich.; also after examining lands in Michigan, Ohio, New York, Indiana, Missouri, Kansas Texas and Florida, with a view to finding the best location for the cultivation of celery and other vegetables such as cabbage, cauliflower carrots, beets and asparagus; after a careful investigation in differen parts of the State of Florida, I can freely say that I consider the muck lands near Kissimmee the best located, and the best soil and climate o any yet visited by me in the country. Other vegetables could be grow all through the winter with but slight protection at night.

The Tecumseh Celery Company's celery, called the "Blue Ribbo Brand," takes the lead and sells for the highest prices in New York City St. Louis and Kansas City, Mo., where it is shipped in car loads: an what has been done at Tecumseh, I believe can be repeated at Kissimmee

Truly yours,

E. J. HOLLISTER,

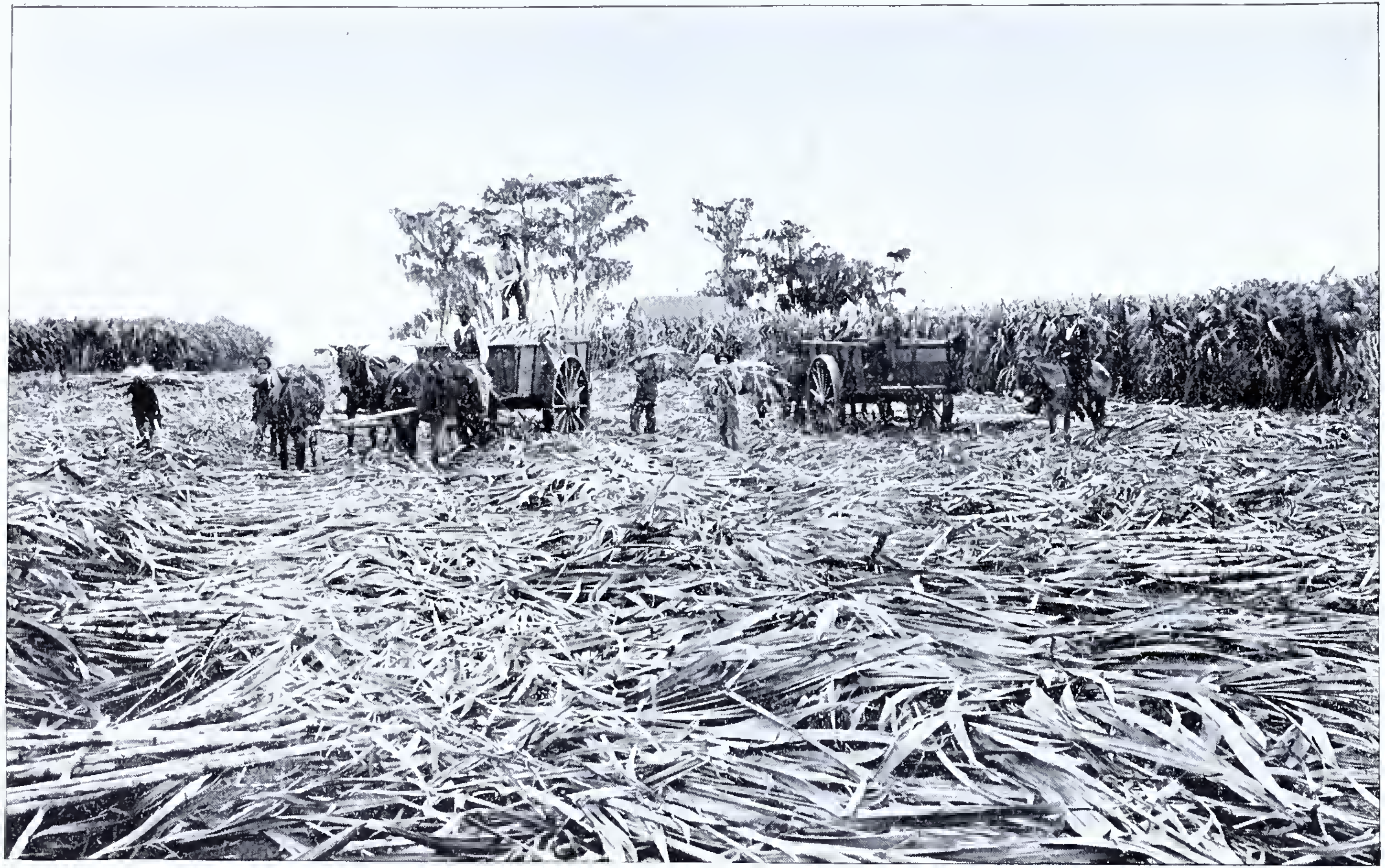
Manager Tecumseh Celery Co.

STOCK RAISING.

The war nearly stripped the peninsular portion of Florid of its cattle. The recuperative power of the Kissimme section and the region to the south is shown in the ease with which these great stock ranges have been re-vitalized Twenty years ago the herds were scattered and small i number; at present several hundred thousand head of cattl are grazing in the Kissimmee valley, and this territory i capable of subsisting an increase of several hundred per cen above the present number.

The method practiced by the large owners approaches a near total neglect as is possible. It consists almost exclusively in a yearly rounding up, corraling, marking the unmarked, and selecting out such as they think they can sell, then turning them again on the ranges until the next year's round up.

Under such management the cattle may not be quite a wild and unmanageable as a herd of buffaloes, but are nearly so. The natural result of such lack of care must be grea



HARVESTING SUGAR CANE.—ST. CLOUD PLANTATION.

losses, with no increase in the quality of the stock. There are many instances of small holders of herds introducing improved breeds. The native cattle have become domesticated and are nightly enclosed in the pens of their owners, and may be enclosed during the day in the bounds of their owner's lands. Among the owners of these small herds a demand for better and improved breeds is increasing, for better milkers, heavier and better flesh, etc. One sees the small-boned, gentle easily kept Guinea, which prove to be unsurpassed as milkers.

Jerseys may also be seen as finely bred as anywhere. Devons are also nestling on the ranges, and in the southern valley of the Kissimmee an experiment with the Holsteins has proved eminently satisfactory, this strain is being rapidly developed.

The rich pasturage which immediately follows the lowering of the waters from the face of the rich meadow lands afford luxuriant grazing at all seasons of the year. For stock-raising, lands improved by drainage are best adapted for pastures, and once set with grasses adapted to the soil and climate, they are converted into meadows which can be mowed from three to six times a year and yield from one to two tons and upward of hay per acre at each mowing. As pastures prepared in the same manner during all the months of the year, they will not suffer in comparison with the June pastures of the dairy farms of New York and Wisconsin.

In the Kissimmee region the cattle, sheep and young horses may gather their food in the pastures and fields to which they are admitted during the winter as well as summer, and as to them the pitchfork and scythe may be hung up.

Cows feeding upon the crab and other annual grasses in summer, and the Bermuda and other perennials, with soiling upon green corn, sorghum, millet, milo maize, and beggar weed, etc., give a full average yield of rich milk at all seasons of the year and dairying is a profitable business.

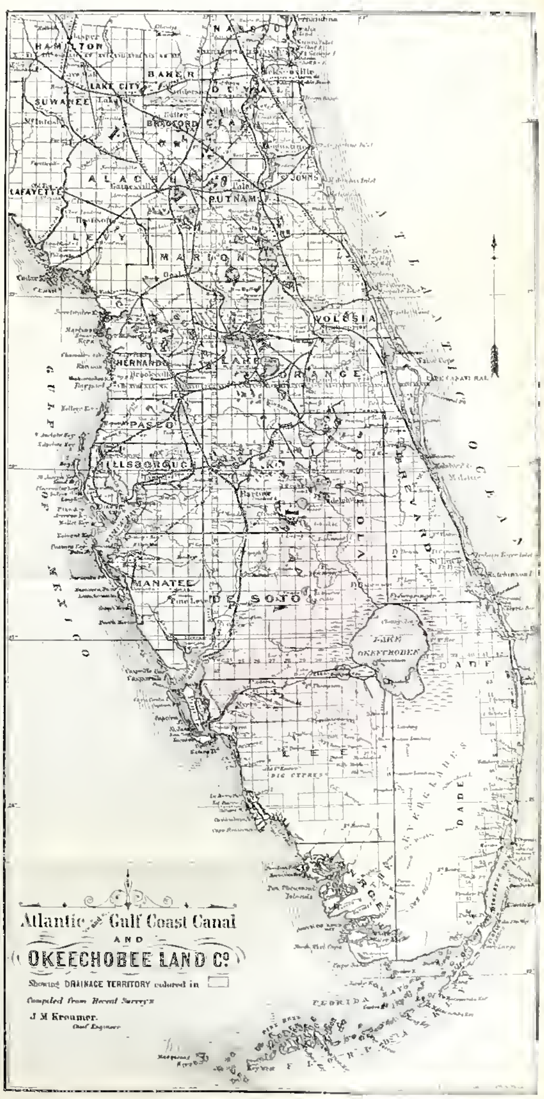
There is no section of the United States which offers to stockmen inducements approaching the advantages possessed by the cattle ranges of the Kissimmee region and its great valley reaching to and adjacent Lake Okeechobee. Such a feature as cattle freezing to death or dying from lack of nutritious grasses, or perishing from lack of water, has never been known in this region.

Sheep thrive well, the mildness of the winters leaves the ranges and pastures always accessible. The fine wooled lose nothing in the character of their fleeces. The Ewes have great fecundity and their increase may be reckoned at 100 per cent annually. They thrive as well or better than in Spain, and it is undeniable that the pastures of the Kissimmee region are well adapted to the successful husbandry of these useful animals.

Horses.—There is no cause in the nature of the climate and soil of the southern peninsula to prevent the rearing of horses of fine stock. On some of the ranches on the lower Kissimmee and in other sections, good farm and road stock has been bred for years, the animals are allowed to range most of the year, and from the constant out door life under such favorable conditions, prove to be superior to the same grade of horses raised in the North.

For fine stock-raising and training of young blooded horses there is no section of the United States equal to this region. The turf prairies and constant outdoor exercise would bring young horses forward more rapidly than in any other section of the country. It only requires some progressive stock-man to take the initiative to demonstrate this feature. The speed of the ordinary "Cracker" pony of our prairies is phenomenal for short stretches, and for powers of endurance they are unsurpassed.

The Drainage Company controls large areas admirably suited for all classes of stock ranges.



Atlantic and Gulf Coast Canal
AND
OKEECHOBEE LAND Co.
Showing DRAINAGE TERRITORY colored in ☐
Compiled from Recent Surveys
J M Kreamer.
Chief Engineer

MAP SHOWING
Sugar Land and Drainage Canals
OF THE
ATLANTIC GULF COAST CANAL & OKEECHOBEE LAND CO.
in Vicinity of Kissimmee, Fla.

SCALE 1 INCH = 10000 FEET

J. M. KREAMER
CHIEF ENGINEER

SURVEY BY V. P. KELLER C.E.